



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,648	11/21/2001	Brig Barnum Elliott	00-4051	3681

32127 7590 08/25/2004

VERIZON CORPORATE SERVICES GROUP INC.
C/O CHRISTIAN R. ANDERSEN
600 HIDDEN RIDGE DRIVE
MAILCODE HQEO3H14
IRVING, TX 75038

EXAMINER

PEREZ, ANGELICA

ART UNIT	PAPER NUMBER
----------	--------------

2684

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,648

Applicant(s)

ELLIOTT ET AL.

Examiner

Angelica M. Perez

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2002.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-28 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, 7-21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zipper (Zipper, Eliav; Pub No.: 2003/0,119,460 A1) in view of Hendrickson (Hendrickson et al.; US Patent No.: 6,754,470 B2).

Regarding claim 1, Zipper teaches of a radio frequency power monitoring device (paragraph, 0012; e.g., "receive radio frequency signals" and paragraph 0015, lines 5-8; e.g., "'A bar 196 may indicate one unit strength of received signal 111...") comprising: a frequency selector configured to pass one or more radio frequency bands of a received radio frequency signal (paragraph 0009; where CDMA systems are configured to pass one or more frequency signals"); a power estimator configured to estimate a power level of the received radio frequency signal (paragraph 0018; e.g., "power level decoder...software...according to calibration parameters); a memory (paragraph 0018, lines 7-8); a processing unit configured to: receive the power level from the power estimator (paragraph 0018, lines 5-9; where the estimation is done when the parameters are calibrated according to the predetermined radiation levels), store the power level in the memory, and construct a record comprising the power level and a unique identifier associated with the radio frequency power monitoring device

(paragraph 0018; e.g., “power level decoder...software...”; where a processor is required to process software. Also, mobile cellular units comprise a unique identifier number).

Zipper does not specifically teach of a network interface configured to transmit the record to a measurement collection server across a network.

In related art concerning a system and method for measuring wireless device and performance metrics, Hendrickson teaches of a network interface configured to transmit the record to a measurement collection server across a network (columns 7 and 8, lines 153-57 and 1-6; e.g., “data gathering software 110 tracks the usage and performance of individual usage activity...to collect certain data...routed through an intermediate server. See also, column 15, lines 32-39; e.g., “transmit and receive power”).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine Zipper’s power monitoring device with Hendrickson’s measurement collection step in order to better understand user’s usage patterns, as taught by Hendrickson.

Regarding claim 10, Hendrickson teaches of a method of archiving radio frequency (RF) power profiles (column 15, lines 5-50; e.g., “collect data to ascertain demographic profiles”), comprising: Zipper further teaches of measuring an RF power level at an RF power monitoring device to obtain a measured RF power level (paragraph 0018, lines 5-9; where the comparison is done according to a threshold) transmitting the measured RF power level and a unique identifier associated with the

RF power monitoring device to a measurement archival server across a network paragraph 0018; e.g., “power level decoder...software...”; where a processor is required to process software. Also, mobile cellular units comprise a unique identifier number); and storing the measured RF power level and the unique identifier as a data record in the measurement archival server (column 15, lines 5-8; e.g., “storing”).

Regarding claims 7, 12 and 17, Zipper in view of Hendrickson and further in view of Holsinger teaches all the limitations of claims 1, 10 and 15, respectively. Zipper further teaches where the unique identifier comprises at least one of a device serial number, a device alphanumeric identifier and a network address (paragraph 0001; where mobile cellular units inherently comprise a unique identifier number).

Regarding claims 5, 9, 11 and 16, Zipper in view of Hendrickson teaches all the limitations of claims 1, 10 and 115, respectively. Hendrickson further teaches where the network comprises an IP network (figure 2, item 225; where “wireless internet data” comprises an “IP network”).

Regarding claims 8, 13 and 18, Zipper in view of Hendrickson teaches all the limitations of claims 7, 12 and 17, respectively. Proctor further teaches where the network address comprises an IP address (paragraphs 0022 and 0025; where it is inherent for IP networks to comprise IP addresses).

Regarding claim 14, Zipper in view of Hendrickson teaches all the limitations of claim 10. Zipper further teaches where the RF power level is associated with a wireless telephony frequency band (paragraph 0001; e.g., “cellular-phone transceivers”).

Regarding claim 15, Zipper in view of Hendrickson teaches all the limitations of claim 10. Zipper further teaches comprising: first data comprising a unique identifier associated with a radio frequency (RF) power monitoring device interconnected with a network (paragraph 0001; where mobile cellular units inherently comprise a unique identifier number); and second data comprising an RF power level measured at the RF power monitoring device (paragraph 0018; e.g., "power level decoder...software...according to calibration parameters). Hendrickson further teaches of a data structure encoded on a computer readable medium (column 6, lines 32-36).

Regarding claim 19, Zipper in view of Hendrickson teaches all the limitations of claim 15. Hendrickson further teaches of a third data comprising a time stamp that indicates a time at which the RF power level was measured at the RF power monitoring device (column 4, lines 55-64; e.g., "performance metrics...time stamp data").

Regarding claim 20 and 25, Hendrickson teaches of a system for archiving radio frequency (RF) power levels measured at distributed locations in a network (column 15, lines 5-50; e.g., "collect data") and power profiles (column 15, lines 5-50; e.g., "collect data to ascertain demographic profiles"), comprising: a plurality of RF power monitoring devices (column 4, lines 47-49), each configured to: Zipper further teaches measure an RF power level at a location of the device (paragraph 0018, lines 5-9; where the comparison is done according to a threshold), and transmit one or more packets comprising the measured RF power level and a unique identifier associated with the device across a network (paragraph 0018; e.g., "power level decoder...software..."; where a processor is required to process software. Also, mobile cellular units comprise

a unique identifier number); and an archival server configured to: receive the packets from each of the plurality of RF power monitoring devices (column 4, lines 42-46; where the data is collected from all the devices), and store the measured RF power levels and associated unique identifiers from the packets in a power history database (paragraph, 0012; e.g., "receive radio frequency signals" and paragraph 0015, lines 5-8; e.g., "A bar 196 may indicate one unit strength of received signal 111..."; column 15, lines 5-50; e.g., where "profiles" correspond to "history").

Regarding claim 21, Hendrickson a radio frequency measurement collection server (columns 7 and 8, lines 53-57 and 1-6; e.g., "data gathering software 110 tracks the usage and performance of individual usage activity...to collect certain data...routed through an intermediate server. See also, column 15, lines 32-39; e.g., "transmit and receive power"), comprising: a memory (column 4, lines 43-44); and a processing (column 4, lines 43-44) configured to: receive messages transmitted from radio frequency power monitoring devices located at distributed locations in a network (column 4, lines 42-46; where the data is collected from all the devices); and store the radio frequency power measurement data and unique identifier data in the memory (column 15, lines 5-50; e.g., where data is inherently saved with the corresponding identifier). Zipper teaches of retrieving radio frequency power measurement data and unique identifier data from each of the received messages, the unique identifier data being associated with the radio frequency power monitoring device at which the radio frequency power was measured (paragraph 0001; where mobile cellular units inherently comprise a unique identifier number).

25. A system for archiving radio frequency (RF) power profiles, comprising:
means for measuring a RF power level at an RF power monitoring
device to obtain a measured RF power level; means for transmitting the measured RF
power level and a unique identifier associated with the RF
power monitoring device to a measurement archival server across a network, the
unique identifier comprising at least one of a device serial
number, a device alpha-numeric identifier and a network address; and means for storing
the measured RF power level and the unique identifier as a
data record in the measurement archival server.

3. Claims 2-4 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Zipper in view of Hendrickson and further in view of Holsinger (Holsinger et al.; US
Patent No.: 4,055,733).

Regarding claim 2, Zipper in view of Hendrickson teaches all the limitations of
claim 1.

Zipper in view of Holsinger does not specifically teach of power estimator
comprising: a rectifier configured to rectify the received radio frequency signal; and a
filter configured to pass one or more bands of frequencies, the filter comprising at least
one capacitive device and a plurality of resistive devices, the plurality of resistive
devices forming a voltage dividing network that supplies portions of the rectified radio
frequency signal to a plurality of power level indicators.

In related art concerning line level power signal measurements, Holsinger teaches of a rectifier configured to rectify the received radio frequency signal (figure 3, item 65); and a filter configured to pass one or more bands of frequencies (figure 3, item 66), the filter comprising at least one capacitive device and a plurality of resistive devices (figure 4, items 76 and 75), the plurality of resistive devices forming a voltage dividing network that supplies portions of the rectified radio frequency signal to a plurality of power level indicators (column 3; where the indicators are represented by items 114, 95, 100, 101, 102 and 121).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine Zipper's power monitoring device with Holsinger's indicator circuit in order to provide different indicators representative of different power levels, as taught by Holsinger.

Regarding claim 3, Zipper in view of Hendrickson and further in view of Holsinger teaches all the limitations of claim 2. Zipper further teaches of a display device configured to indicate the power level of the received radio frequency signal (paragraph 0017).

Regarding claim 26 and 28, Zipper teaches of a device (paragraph 0001; "hand held devices") and method of monitoring radio frequency (RF) power at a hand-held RF power monitoring device (paragraph 0001; e.g., "hand held device" and "received signal strength"), comprising: receiving RF signals to obtain received RF signals (paragraph 0001; where cellular devices receive RF signals); estimating a power level associated with the frequency selected RF signals (paragraph 0017; and activating at least one of a

high, medium and low RF power level indicator based on the estimated power level (paragraph 0023, lines 7-13; e.g., "... display different colors of light for different levels of transmitted power..."). Holsinger teaches of a frequency selecting the received RF signals to obtain frequency selected RF signals (figure 4, items 75);

Regarding claims 4 and 27, Zipper in view of Hendrickson and further in view of Holsinger teaches all the limitations of claims 3 and 26, respectively. Zipper further teaches where the display device comprises the plurality of power level indicators, each of the plurality of power level indicators indicating at least one of a high, medium, and low power level (paragraph 0023, lines 7-13; e.g., "... display different colors of light for different levels of transmitted power...").

4. Claims 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holsinger in view of Zipper.

Regarding claim 22, Holsinger teaches of a circuit for measuring frequency power levels (figures 3 and 4), comprising a rectifier configured to rectify the received radio frequency signal (figure 3, item 65); and a filter configured to pass one or more bands of frequencies (figure 3, item 66), the filter comprising at least one capacitive device and a plurality of resistive devices (figure 4, items 76 and 75), the plurality of resistive devices forming a voltage dividing network that supplies portions of the rectified radio frequency signal to a plurality of power level indicators (column 3; where the indicators are represented by items 114, 95, 100, 101, 102 and 121).

Holsinger does not specifically teaches of the display device configured to indicate the power level of the received radio frequency signal the intensity display device comprises the plurality of power level indicators, each of the plurality of power level indicators indicating at least one of a high, medium, and low power level.

In related art concerning a power level indicator, Zipper teaches of a display device configured to indicate the power level of the received radio frequency signal (paragraph 0017) the intensity display device comprises the plurality of power level indicators, each of the plurality of power level indicators indicating at least one of a high, medium, and low power level (paragraph 0023, lines 7-13; e.g., "... display different colors of light for different levels of transmitted power...").

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine Holsinger's power monitoring device with Zipper's indicator circuit in order to provide different indicators representative of different power levels, as taught by Zipper.

Regarding claims 23, Holsinger in view of Zipper teaches all the limitations of claims 22. Zipper further teaches where the plurality of power level indicators comprise light emitting diodes (paragraph 0019, lines 8-9).

Regarding claims 4 and 27, Zipper in view of Hendrickson and further in view of Holsinger teaches all the limitations of claims 3 and 26, respectively. Zipper further teaches where the display device comprises the plurality of power level indicators, each of the plurality of power level indicators indicating at least one of a high, medium, and

low power level (paragraph 0023, lines 7-13; e.g., "... display different colors of light for different levels of transmitted power...").

5. Claims 6 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zipper in view of Hendrickson; in view of Holsinger and further in view of Tom (Tom, Alfred C. US Patent No.: 6,690,947 B1).

Regarding claims 6 and 24, Zipper in view of Hendrickson and further in view of Holsinger teaches all the limitations of claims 3 and 22, respectively.

Zipper in view of Hendrickson does not specifically teach where the display device comprises at least one of a liquid crystal display device and a video display device.

In related art concerning flexible wireless communication and cellular telephone system, Tom teaches where the display device comprises at least one of a liquid crystal display device and a video display device (column 15, lines 6-10; e.g., "LCD" and column 18, lines 50-52; where the examiner has selected LCD from the choices provided).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine Zipper's power monitoring device with Tom's LCD in order to conform to devices found nowadays, as taught by Tom.

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to

Art Unit: 2684


Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.


Angelica Perez
(Examiner)

EDAN ORGAD

Art Unit 2684

August 9, 2004